

संदर्भ सं.: भा.बि.प्रा./पू.क्षे./कोल/ सब. डिवि- II/E-E/W-C-01/2023-24/38
Ref. No: - AAI/ER/Kol/Sub. Div-II/E-E/W-C-01/2023-22/38

दिनांक: 24.04.2023
Date: 24.04.2023

सेवा में/To,

M/s Youngmen Traders,
27/1, Rastraguru Avenue,
Dum Dum, Kolkata-700028

विषय: कार्य का नाम: - बागजोला TX. स्टेशन पर डीजी सेट को साइलेंट डीजी सेट में प्रतिस्थापन और मौजूदा पैनल का संशोधन.

Subject: Name of Work: - Replacement of Normal DG set to Silent DG set and Modification of existing Panel at Bagjola Tx. Station.

महोदय/Dear Sir(s),

Ref: (i) Your e-Tender opened dated 18.01.2023 for Tender ID No. 2023_AAI_147505_1.

1. उपरोक्त कार्य के लिए आपकी निविदा अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण की ओर से आप द्वारा उद्धरित मद दर जिसकी कुल राशि रु. 8492975.00 (चौरासी लाख बानबे हजार नौ सौ पचहत्तर रुपया मात्र) जीएसटी को छोड़कर जो कि निविदा की अनुमानित लागत रु. 12068682.00 से 29.63% निचे है, स्वीकृत की जाती है।

Your e-Tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at item rates quoted by you totaling to **Rs.8492975.00 (Rupees Eighty Four Lakhs Ninety Two Thousand Nine Hundred and Seventy Five Only)** Excluding GST which is 29.63% Below the Justified cost of Rs.12068682.00

2. संयुक्त-महाप्रबन्धक (अभि.- विद्युत), भा. वि. प्रा., ने. सु. च. बो. अ. हवाई अड्डा, कोल-52. इस कार्य के इंजीनियरिंग प्रभारी होंगे। आपसे अनुरोध है कि आप संविदा करार पर हस्ताक्षर करने एवं उसे पूरा करने हेतु दिनांक 10.05.2023 के अंदर संयुक्त-महाप्रबन्धक (अभि.- विद्युत), पू.क्षे. भा. वि. प्रा., ने. सु. च. बो. अ. हवाई अड्डा, कोल-52 के कार्यालय में उपस्थित हों। संविदा करार रु 100/- (सौ रुपये मात्र) के न्यायिकेतर (नॉन ज्युडिशियल) स्टाम्प पेपर पर बनाया जाएगा और स्टाम्प पेपर की लागत आपको वहन करनी होगी।

Jt. General Manager (Engg. -E), AAI, NSCBI Airport Kolkata-52 shall be the Engineer-in-Charge of the work. You are requested to attend the office of the Jt. General Manager Engg. -(E), ER, AAI, NSCBI Airport, Kolkata-52 by 10.05.2023 to sign and complete the agreement. The contract agreement shall be executed on a non-judicial stamp paper of value **Rs.100.00** (Rupees One Hundred only) and the cost of stamp paper shall be borne by you.

3. आपकी निविदा के साथ प्राप्त बयाना राशि रु 241374.00 (दो लाख इकतालीस हजार तीन सौ चौहत्तर रुपया मात्र) सुरक्षा जमा के हिस्से के रुप में परिवर्तित कर दिया गया है। कृपया इस पत्र के जारी होने के 10 दिन के भीतर सुरक्षा जमा के लिए रु. 607923.50 (छह लाख सात हजार नौ सौ तेईस और पचास पैसे रुपया मात्र) जमा करवा दें, ऐसा नहीं करने पर उक्त रकम संविदा दस्तावेज के पृष्ठ 17 पर दी गई शर्त 1A के अनुसार आपके रनिंग बिल से काट ली जाएगी।

Contd...

The Earnest Money amount of **Rs.241374.00** (Rupees Two Lakhs Forty One Thousand Three Hundred and Seventy Four Only) received along with your e-tender will be treated and converted as a part of Security Deposit. Please deposit **Rs.607923.50** (Rupees Six Lakhs Seven Thousand Nine Hundred Twenty Three and Fifty Paise Only) towards Security deposit within 10 days from the date of issue of this letter, failing which the same will be deducted as per conditions of Clause No – 1A page 17 of Clauses of the contract document.

4. आपसे अनुरोध है कि संविदा श्रमिक (विनियमन एवं समापन) अधिनियम 1970 और संविदा श्रमिक (विनियमन एवं समापन) केन्द्रीय नियमावली 1971 बाल श्रम (निषेध और विनियमन) अधिनियम 1986, निर्माण वर्कर्स (रोजगार और सेवा की शर्त का विनियमन) अधिनियम 1996, भवन और अन्य निर्माण श्रमिक कल्याण अपकरण अधिनियम 1996 जैसा कि निविदा के जीसीसी के पृष्ठ संख्या 54 पर धारा 19 में जीसीसी आफ निविदा निर्दिष्ट है तथा केंद्रीय और राज्य सरकारों के नियमों का अनुपालन करें।

You are requested to comply with the provisions of Contract Labour (Regulation & Abolition) Act of 1970 and Contract Labour (Regulation and Abolition) Central Rules-1971 Child Labour (Prohibition & Regulation) Act 1986, Construction Workers (Regulation of Employment and Condition of Service) Act 1996, Building and other construction Workers Welfare Cess Act 1996 as specified in Clause-19 On Page No.54 of GCC of Tender and rules of Central and State Governments.

5. आपको इस कार्य के लिए NIT GCC Clause No.46 के अनुसार कार पॉलिसी प्रस्तुत करने के लिए निर्देशित किया गया है और इस काम के लिए अलग से काम करने वाले कर्मचारी हैं।

You are hereby directed to submit the CAR Policy as per NIT GCC Clause 46 for materials and workers to be employed for this work separately.

6. आपको निदेश दिए जाते हैं कि सहायक महाप्रबन्धक (अभी.- विद्युत), भा. वि. प्रा., ने. सु. च. बो. अ. हवाई अड्डा, कोल-52 से तत्काल सम्पर्क करें जो कि आपको कार्यस्थल हस्तान्तर करने की व्यवस्था करेंगे।

You are also directed to contact the **Asstt. General Manager Engg. -(E)**, ER, AAI, NSCBI Airport Kolkata-52 immediately, who will arrange to handover the site to you.

7. कृपया नोट कर लें कि कार्य समाप्त करने का समय 4 (चार) महीने है और वृत्ति की देयता है 01 (एक) साल कार्य समाप्त होने के बाद से गिना जाएगा और कार्य आरंभ करने की तिथि इस पत्र के जारी होने के 10 वें दिन से गिना जाएगा।

Please note that the time allowed for carrying out the work shall be **4 (Four) Months and after completion of work Defect Liability Period shall be 01 (One) year** and same shall be reckoned from the 10th day after the date of issue of this letter.

8. संविदा के संबंध में आगे किया जाने वाला पत्राचार सामान्यतः प्रभारी इंजीनियर से किया जाए।

Any further correspondence in connection with the contract should normally be addressed to the Engineer – in – Charge.

Contd...

Page-III

9. कृपया इस पत्र की पावती भेजें तथा साथ में संलग्न इस पत्र की दूसरी प्रति पर स्वीकारोक्ति के रूप में विधिवत हस्ताक्षर करके हमें वापस भेजें।

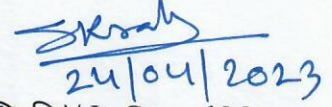
Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to undersigned as a token of acceptance.

10. यदि अंग्रेज़ी और हिन्दी पाठ में कोई असंगति पाया जाता है तो अंग्रेज़ी पाठ को सही माना जाएगा ।

If there is any discrepancy between English and Hindi then meaning derived in English will be given precedence.

धन्यवाद / Thanking you,

भवदीय / Yours Faithfully,



24/04/2023

संयुक्त-महाप्रबन्धक (अभि.-वि.) / Jt. General Manager (E-E)

भा. बि. प्रा., पूर्वी क्षेत्र / AAI, ER

ने. सु. च. बो. अ. हवाई अड्डा / NSCBI Airport

कोलकाता 700052 / Kolkata 700052

संलग्न / Encl: शिड्यूल ऑफ़ वर्क्स(A) / Schedule of Works (A).

AIRPORTS AUTHORITY OF INDIA
ELECTRICAL ENGINEERING WING
N.S.C.B.I AIRPORT, KOLKATA-700052
Schedule of Works (A)

Name of Work:- Replacement of Normal DG set to Silent DG set and Modification of existing Panel at Bagjola Tx. Station.

Sl. No.	Description of Item	Qty	Unit	Rate (Rs.)*	Amount (Rs.)
1	Design, Supply, Assembling, Installation, Teating & Commissioning of oil filled 250KVA, 6.6/0.415KV $\pm$ 5%, 3 Phase, 50Hz, Dyn 11 vector group copper wound class F for natural easter oil immersed (IS: 16659:2017), KNAN cooled complete with all fittings such as Air cell oil conservator, Silica Gel Breather Thermometer PRV etc. having impedance as per IS-2026 and conforming green initiative EEL1, Griha rated associated with winding temperature indicator / digital controller, temperature detector outdoor type Transformer. The transformer shall be provided with +5% to -10% in steps of 2.5% each On load tap changer on HT side. The transformer shall has bydirectional rollers, winding temperature indicator and Buchholz Relay with wiring upto the marshaling box and also shall have min 8mm thick Non-magnetic Gland Plate, on-line Health Monitoring system, Provision for intigration with NIFPS. Transformer shall has first filling of oil, weather proof cable end boxes on HV side suitable for 3C X 120sq.mm XLPE cable of 11KV grade and 630Amp aluminum bus trunking arrangement of LV side with neutral brought out separately, provision of surge arrestor on HT side including supplying and grouting suitable MS channels with all accessories for mounting arrangement and confirming to relevant standard as amended upto date & as per Technical specification and as Directed by E.I.C. Note: Before quoting the price Agency should visit the site of execution, understand the requirement and go through the entire Tender document. No deviation will be accepted after placing of purchase order.	Job	1	1180000.00	1180000.00
2	Supply, Installation, Teasting & Commissioning of indoor type floor mounted metal clad, 11KV Switch Board VCB Panel with 02 Nos VCBs, totally enclosed & fully interlocked, truck mounting, horizontal draw out, horizontal isolation type vaccum breaker as per IS/IEC 62271-100 (2007) for breakers 200 (2003), for panels / IS3247 as amended up to date, having capacities as mentioned below, free standing extensible on both sides, single break, trip free mechanism, motorised charged and auto / manually closed breaker suitable for use on 11KV, 3 Phase, 50Hz short circuit fault level of 500MVA, complete with self contained short time current 26.3kA for 3sec, Internal Arc Test for AFLR 26.3kA for 1sec at individual compartments i.e. busbar VCB and cable compartment, rack in and rack out machanism, air insulated but encapsulated copper bus bars capacity meeting fault level current, DC power pack, breaker featured with mechanical ON/OFF indicator with hand trip device, Breaker control TNC switch and all accessories as shunt trip coil, and auxiliary switch of 4NO + 4NC, motorised and manually operated spring assisted closing mechanism, emergency trip push button, interconnections, space heater, earthing etc. and equipped with following switchgears and accessories, connections suitable for cable upto 3C X 120sqmm XLPE cable of 11KV grade (cable entry from bottom), Separate earthing switch shall be provided for cable earthing. The earthing trunk shall be so designed that it is impossible to earth a live. cable terminatiuons suitable for 3C X 120sq.mm. XLPE 11KV Cable including obtaining necessary approval form CEA before energisation of VCB and getting the end termination done by CESC etc. as required.	Job	1	1450000.00	1450000.00

SK

Sl. No.	Description of Item	Qty	Unit	Rate (Rs.)*	Amount (Rs.)
3	NON-ESSENTIAL MAIN LT PANEL :- Design, manufacture and supply main LT Panel, cubicle & modular type, made of 2 mm thick sheet steel for frame work and covers, 3mm thick for gland plates, totally enclosed, IP 54, free standing, floor mounting, dust and vermin proof, indoor, compartmentalised, including cleaning & finishing complete with 7 tank process, powder coated, painting, suitable for operation on 3 Phase and neutral, 415v, 50 Hz AC system with Alluminium busbars extensible on both sides, fabrication shall be done in transportation sections, entire panel shall have a common copper earth bar of size 25mm x 5mm at the rear with 2 nos. earth stud, control wiring with 2.5 sq.mm. PVC insulated copper conductor, cable alloys, cable gland plates in two half, interconnections including supply & installation of following items and as per technical specification: (A) INCOMER :- i) 2 nos. 320A MCCB, FP, fault braking capacity (Ics=Icu upto 433V) 50 kA, with thermal magnetic release having short circuit (Ics=Icu), over current, earth fault with Electrically and Manually interlocking arrangements with extended rotary handle ii) 2 nos. Digital Voltmeter, accuracy class 1, suitable range for 3 phase, 4 wire operation with LED display and built-in selector switch along with 2 nos. of 6 Amp SP / MCBs., iii) 2 sets Indication Lamps, LED type for R,Y,B and breaker 'ON', 'OFF', 'TRIP' indications with 6 Amp MCBs for protection., iii) Digital Multifunctional Meter of suitable range fitted with RS485 Port and compatible for intregation with data logger system along with 2 nos. of 2 Amp SP / MCBs - 2 sets. (B) Bus Bars :- 1 set of high conductivity Alluminium bus bars of 400A , 4P with heat shrinkable coloured sleeves and i/c DMC/SMC busbars supports at required intervals. (C) Bus coupler:- i) 1 No.320A MCCB FP, 50 kA, with thermal magnetic release type for interconnection between 02 Nos Incomers with extended rotary handleii) 1 Set Indication Lamps, LED type for 'ON' , 'OFF', 'TRIP' indications with 6 Amp SP/MCBs, auxiliary contact contactors for positive electrical interlocking of breakers etc. as required. (D) Accessories for Electrical & Mechanical Interlocking :- Electrical & mechanical interlocking arrangement among 2 nos. Incomers and 1 no. Bus coupler including interconnections etc. as required. (E) Outgoing :- i) 2 Nos. MCCB, 250A, 35 kA, Four Pole , With Thermal magnatic release having Over Current and , Short Circuit Current Sattings,(Ics=Icu) . ii) 2 Nos. MCCB, 200A, 35 kA, Four Pole, with Thermal magnatic release having Over Current and , Short Circuit Current Sattings,(Ics=Icu). iii) 2 Nos. MCCB, 125A, 35 kA, Four Pole, with Thermal magnatic release having Over Current and , Short Circuit Current Sattings, (Ics=Icu). vi) 06 Sets (1 Set for each Outgoing MCCB) of Indicating lamps, LED type, for breaker "ON", "OFF", "TRIP" indication with HRC control fuses/MCBs., vii) 06 Sets (1 set for each MCCB) of Extended Rotary operating mechanism, terminal extension spreaders .	Set	1	550000.00	550000.00



Sl. No.	Description of Item	Qty	Unit	Rate (Rs.)*	Amount (Rs.)
4	ESSENTIAL LT PANEL :- Design, manufacture supply LT Panel, cubicle & modular type, made of 2 mm thick sheet steel for frame work and covers, 3mm thick for gland plates, totally enclosed, IP 54, free standing, floor mounting, dust and vermin proof, indoor, compartmentalised, including cleaning & finishing complete with 7 tank process, powder coated, painting, suitable for operation on 3 Phase and neutral, 415v, 50 Hz AC system with Alluminium busbars extensible on both sides, fabrication shall be done in transportation sections, entire panel shall have a common copper earth bar of size 25mm x 5mm at the rear with 2 nos. earth stud, control wiring with 2.5 sq.mm. PVC insulated copper conductor, cable alloys, cable gland plates in two half, interconnections including supply & installation of following items and as per technical specification: (A) INCOMER:- i) 2 Nos. FP 250A,35KA MCCB with thermal magnetic release having short circuit short circuit (Ics=Icu), over current, earth fault with Electrically and Manually interlocking arrangements along with extended rotary handle , ii) Digital Multifunctional Meter of suitable range fitted with RS485 Port and compatible for integration with data logger system along with 2 nos. of 6 Amp SP / MCBs - 2 set. iii) 2 Sets Indication Lamps, LED type, R,Y,B and breaker 'ON', 'OFF', 'TRIP' lamps each with 2 Amp. SP MCB, (B) Bus coupler:- i) 1 No.250A MCCB FP, 35 kA, with thermal magnetic release type for interconnection between 02 Nos Incomers with extended rotary handle , ii) 1 Set Indication Lamps, LED type for 'ON' , 'OFF', 'TRIP' indications with 2 Amp SP/MCBs, auxiliary contact contactors for positive electrical interlocking of breakers etc. as required. (C) Accessories for Electrical & Mechanical Interlocking :- Electrical & mechanical interlocking arrangement as per drawing and specifications among 2 nos. Incomers and 1 no. Bus coupler including interconnections etc. as required. (D) Alluminium Bus Bars :- 1 set of high conductivity Alluminium bus bars of Size 40 x 10mm , 4P with heat shrinkable coloured sleeves and i/c DMC/SMC busbars supports at required intervals. (D) Outgoing :- i) 04 Nos-200A,415V, 35 KA Rating 4P MCCB with thermal magnetic release having short circuit short circuit (Ics=Icu), over current, earth fault along with extended rotary handle. (ii) 06 Nos 125A, 415V, 35 KA Rating 4P MCCB with thermal magnetic release having short circuit (Ics=Icu), over current, earth fault along with extended rotary handle (iii) 10 Sets of Indicating lamps, LED type, for breaker "ON", "OFF", "TRIP" indication with 2 Amp SP MCBs main extension spreaders and 'ON' (Red) indication lamp (LED type) with 2 Amp SP control fuse/MCBs	Set	1	500000.00	500000.00
5	160 KVA SILENT TYPE DG SET WITH DG SET CONTROL MODULE :- Supply, installation, testing and commissioning of 160 KVA Silent type D.G Set with DG set controller module mounted on DG set, having AMF control Panel(separate), auto load management, inbuilt metering & protection, communicable port (RS485) etc. and acoustic enclosure conforming to latest environment protection regulations for emission and noise levels complete with Diesel Engine of suitable BHP (considering de-rating factor if any) at 1500 RPM, water / oil cooled Radiator, four stroke, electric start, turbo-charged & after cooled conforming to BS: 5514 with all standard accessories, coupled with Alternator of 160 KVA rating, brushless, self excited, self regulated and suitable for continuous operation , generating 415 V+/-5% Volts at 0.8 PF (lag), 50Hz, 3 phase, 4 wire system generally conforming to BS: 2613 & IS: 4722. Both Engine and Alternator shall be mounted on common channel iron base frame, with Internal Fuel tank and fuel pipe line upto 10 meter (to be concealed under floor), exhaust pipe line upto 15 meter (to be erected with sufficient M.S supports and insulated, hood on top). Antivibration mountings, residential type silencer, electric starter, batteries & battery charger, other standard accessories etc complete as required. (Refer Technical specification)	Each	2	1100000.00	2200000.00

SK

Sl. No.	Description of Item	Qty	Unit	Rate (Rs.)*	Amount (Rs.)
6	Design, SITC of automatic mains change over panel (AMF) made out of 14 SWG sheet steel powder coated capable to deliver and transfer the full load from the normal source to DG emergency source within a switch over time of 3 to 15 seconds with three attempts. The Panel is suitable for continuous rating and have the following accessories. The automatic main transfer panel shall be provided with the protection gear, instruments and accessories as per Technical specification.	Each	2	300000.00	600000.00
	a) 4 pole 250 A MCCB unit - 2 Nos.				
	b) The main & Generator power contactor shall be of 4 poles 320 A (min) - 2 Nos.				
	c) 4 pole, 320 A common copper busbar.				
	d) By-pass arrangement for main and DG with 4 pole on load changeover switches 320 Amp (min) 2 numbers in a sub compartment				
	e) AC & DC voltmeters (Digital) and AC & DC ammeters (Digital) with selector switches, HRC control fuses and CTs as required.				
	f) Digital energy meter and frequency meter				
	g) Battery charger (for boost & tickle charging) with selector switches for volts & current & ON / OFF in a compartment.				
	h) Audio visual signal indicator with macro processor based relay to indicate the abnormality of engine and various faults in a sub compartment. (for engine low lube oil pressure, high cylinder head temp. DG set fails to start, OL/OC/EF/UV/OV/Signal phasing etc) indication for load on mains, load on Genset.				
	i) Push buttons for engine start, stop ,test, accept, reset, contactor ON, contactor OFF.				
	j) Selector switches - auto/ manual/ test & off, Source selection switch for volt & current and control supply ON/OFF switch etc.				
	k) 12/24 V DC control circuit, line voltage monitor, three attempts starter, relays for over current, earth fault, under voltage, over voltage, reverse power and all other required components & circuit.				
	i) Interconnection between DG set and AMF panel with copper conductor / control cable as per site requirement.				
7	Supply, installation, testing and commissioning of Desiccant type table top Dehumidifier manufactured by an ISO 9001:2015 and ISO14001:2015CE certified Indigenous manufacturer having own in-house manufacturing facility of desiccant rotor and after-sales-service set-up in Kolkata/Eastern Region of capacity 600CMH (360CFM) including angle iron support for fixing in the wall suitable for operation 415Volts, 50 Hz, 3Phase AC supply of collected load 8 KW (approx.) made of Robust stainless steel frame with double skin insulated construction casing frame work SS tubular industrial quality EU-4filter, proces blower and motor, requisit number of dampers high efficiency desiccant roter comforming to sefety standard as per UL1995CSA C22.2 No.236-11,DIN EN ISO846, ASTM E84-13A. The Dehumidifier must consist of built in sensors, 100% electrical regeneration system and PLC based control panel with HMI and 7" touch screen for temp & RH display , fault management with Modbus / Backnet BMS connectivity and all above components housed in a vapour tight complying to SMA CNA Class 6 integrated engineered unit mounted on a common frame work and assembled & functionally tested at manufacturer's plant, approx dimension 0.89 mtr. (L) into 0.63 mtr. (W) into 0.49 mtr. (H) approx. weight 500kg complete as required as per Technical specsification or Similer to Make: Bry-Air, Model no. FFB -600	Set	2	350000.00	700000.00
8	Supply of following sizes of XLPE insulated PVC sheathed aluminium conductor armoured power cable of 11 KV grade (11 KV earthed system) conforming to IS : 7098 (Part-II) amended upto date.				
8.1	3 Core x 120 Sq.mm.	Mtr.	100	700.00	70000.00
9	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
9.1	Upto 120 sq. mm	Mtr	50	250.00	12500.00

SK

Sl. No.	Description of Item	Qty	Unit	Rate (Rs.)*	Amount (Rs.)
10	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
10.1	Upto 120 sq. mm	Mtr.	50	40.00	2000.00
11	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11KV grade of following size in the existing masonry open duct as required.				
11.1	Upto 120 sq. mm	Mtr.	40	20.00	800.00
12	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required				
12.1	For 3 Core 120 Sq.mm cable	Sets	4	6000.00	24000.00
13	Laying and fixing of one number armoured PVC insulated and PVC sheathed/XLPE power cable 1.1 kV of following size in the existing cable Trays/ Surface including providing suitable size clamp to secure the cable in tray/ surface as required.				
13.1	Above 35 Sq.mm. and upto 95 sq.mm (clampad with 25x3mm MS flat clamp)	Mtr	50	70.00	3500.00
13.2	Above 185 sq.mm and upto 400 sq.mm (clampad with 40x3mm MS flat clamp)	Mtr.	50	125.00	6250.00
14	Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ STONEWARE/ METAL/CORRUGATED PIPE as required.				
14.1	Above 35 Sq.mm. and upto 95 sq.mm	Mtr.	20	35.00	700.00
14.2	Above 185 sq.mm and upto 400 sq.mm	Mtr.	40	40.00	1600.00
15	Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required.				
15.1	Above 35 Sq.mm and upto 95 sq.mm	Mtr.	80	20.00	1600.00
15.2	Above 185 Sq.m and upto 400 sq.mm	Mtr.	160	35.00	5600.00
16	Supplying and making end termination with brass compression gland and Aluminum lugs for following size of XLPE insulated PVC sheathed aluminium conductor armoured power cable of 1.1 KV grade as required.				
16.1	3.5 Core 240 Sq.mm.	Sets	6	400.00	2400.00
16.2	3.5 Core 70 Sq.mm.	Sets	6	300.00	1800.00
17	Supply and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10 cm including inscription duly engraved as required.	Each	6	200.00	1200.00
18	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Sets	6	11000.00	66000.00
19	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Mtrs.	20	750.00	15000.00
20	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Sets	10	5500.00	55000.00

SK

Sl. No.	Description of Item	Qty	Unit	Rate (Rs.)*	Amount (Rs.)
21	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Mtrs.	20	115.00	2300.00
22	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	Mtrs.	60	1100.00	66000.00
23	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc.as required.	Mtrs.	60	400.00	24000.00
24	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Mtrs.	20	800.00	16000.00
25	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Mtrs.	30	115.00	3450.00
26	Supply and fixing of flame retardant electrical insulation mat CPRI approved of 3.0 mm thick size 1 meter x 2 meter to withstand upto 33 kV conforming to IS 15652:2006 with upto date amendments and having minimum width 1000mm (+ 20mm). The sufficient of adhesive / compound shall be supplied to fix the insulation mat on the front/rear side of electrical installation. Mat shall be ISI marked. Its leakage current at 11 KV shall not be more than 10 MA. The mat shall be welded by hot gas welding with filler material method by making V groove cut at joints with suitable welding cord of insulating material of matching colour to provide a seamless jointed surface as per IS :8002.	Each	6	3600.00	21600.00
27	SITC of roxylene based high standard, high efficient, world class, superior quality, innovative, light weight, space saving, tailor made, most flexible (modular design with peel-able multidiameter technology to adjust the various diameter, single/ multiple cable & conduit) rectangular, round steel framed, transit / entry (Through walls, cable trenches, cable pit, panels etc) sealing solution including frame, modules, wedge / compression unit, stay plate, and lubricant gel all as a standard kit, suitable for a new as well as preinstallation following sites with required sizes cutout including numbers of cable entry with diameter as required.				
27.1	HT cable entry at Badu having cutout size 120mm , cable Diameter 56 mm-01 nos and 04 nos 30x3 earth strip.	Job	1	45000.00	45000.00
27.2	HT cable entry-2 at Rx Old power house having cutout size 450x450mm , cable Diameter 57,36,18, mm-03 nos. (01no.each size)	Job	1	45000.00	45000.00
27.3	LT cable entry at Badu Room Entry -1 having cutout size 670x500mm , cable Diameter 54 mm 02 nos, 52 mm 02 nos, 23 mm 04 nos, 18 mm-04 nos. and 02 nos 6mm GI wire, 02nos 30x3 earth strip.	Job	1	120000.00	120000.00
27.4	LT cable entry at Badu Room Entry -2 having cutout size 400x200mm , cable Diameter 23 mm 04 Nos, 6 mm 06 Nos, 18 mm 01 Nos.	Job	1	45000.00	45000.00
27.5	LT cable entry at Bagjola power house entry-1 having cutout size 330x160mm, cable Diameter 38mm 03nos, 28mm 02nos, 21mm 01no, 6mm 01no.	Job	1	40000.00	40000.00
27.6	LT cable entry at Bagjola power house entry-2 having cutout size 370x260mm, cable Diameter 45mm 03nos, 32mm 01no, 25mm 03nos, and 01 no. 5mm GI wire.	Job	1	75000.00	75000.00
28	Constructing brick masonry chamber of size 1000x1000x700mm (L X B X D) of size in cement mortar 1:4 (1 cement :4 coarse sand) inside cement plaster 15 mm thick with cement mortar 1:3 (1 cement: 3 Coarse sand) finished with floating coat of neat cement foundation concrete 1:3:6(1 cement: 3 coarse sand:6 graded stone aggregate 40 mm nominal size) all complete as per standard design with cover of 75 mm thick ness made by RCC in cement mortar 1:2:4 (1 cement: 2 coarse sand:4 graded stone aggregate 40 mm nominal size) in two piece with 12 mm rod handle in order to easy handling.	Job	1	8000.00	8000.00
29	Design, Supply, Installation & Commissioning of LED Glow Sign Board (48 sqft) made with Alluminium frame fixing on the existing RCC structure with milky white acrylic latter of suitable site of AAI VHF Old remote station as per drawing attached and instruction of EIC. Make of ACP and wire etc. conforming to AAI approved make and for LED as per NIT technical specification.	Job	1	65000.00	65000.00

Sl. No.	Description of Item	Qty	Unit	Rate (Rs.)*	Amount (Rs.)
30	Design, Supply, Installation & Commissioning of LED Glow Sign Board (96 sqft) made with Alluminium frame fixing on the existing RCC structure with milky white acrylic latter of suitable site of AAI Badu Rx station as per drawing attached and instruction of EIC. Make of ACP and wire etc. conforming to AAI approved make and for LED as per NIT technical specification.	Job	1	125000.00	125000.00
31	Design, Supply, Installation & Commissioning of LED Glow Sign Board (96 sqft) made with Alluminium frame fixing on the existing RCC structure with milky white acrylic latter of suitable site of AAI Bagjola Tx station as per drawing attached and instruction of EIC. Make of ACP and wire etc. conforming to AAI approved make and for LED as per NIT technical specification.	Job	1	135000.00	135000.00
32	SITC of Flex Retrofit of size 4 ft x 1.5 ft with backlit LED lights in SS frame for Bagjola Emergency Gate exit providing complete as required conforming to AAI approved make and for LED as per NIT technical specification.	Job	1	15000.00	15000.00
33	RCC foundation with necessary arrangements etc. as required as per RCC Foundation Drawing in technical specification for installation of 2.5 mtr long MS pipe as per site requirement.	Job	8	4500.00	36000.00
34	SITC of 100mm dia Heavy duty MS pipe 2.5 mtr. Length with square size MS base plate (2nos) of attached drawing with the existing RCC structure for installation of Airport LED signage etc. as required as per site requirement.	Job	8	4000.00	32000.00
35	Excavation of the cable trenches in hard rock not exceeding 1.5 metres in width, and lift upto 1.5 metres, including getting out the excavated soil and disposal of excavated soil as directed within a lead of 50 metres.	Cum	20	600.00	12000.00
36	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.				
36.1	40 mm thick with 20 mm nominal size stone aggregate	Sq.mtr.	50	450.00	22500.00
37	Providing brick work (in width 225 mm or more) with F.P.S. bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) at all levels.	Cum	5	8000.00	40000.00
38	Providing 15mm thick cement plaster of mix 1:4 (1 cement : 4 fine sand) at all levels.	Sq.Mtr.	25	225.00	5625.00
39	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep) and re-filling etc as required				
39.1	50mm dia	Mtr.	12	650.00	7800.00
40	Providing & Fixing of MS chennel Iron made of 100mm X 50mm X 6mm(9.56 kg per meter) on the side wall of existing bricks wall of Cable trenches i/c Painting etc as required.	Kg.	250	65.00	16250.00
41	Providing & fixing of MS Checker plate of thickness 10 mm as per IS: 3502: 2009 for covering of cable trenches i/c painting of approved colour etc. as required.	Kg.	300	65.00	19500.00

Total Amount (Rs.) 8492975.00

Amount:- Rupees Eighty Four Lakhs Ninety Two Thousand Nine Hundred and Seventy Five Only.

** Note:- Rates are exclusive of GST. GST will paid extra as applicable.*

SKM
24/04/2023

**Jt. General Manager (E-E)
AAI,RHQ,ER, Kolkata-52**